



U.S. Environmental Protection Agency Resource Conservation and Recovery Act (RCRAInfo)

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Query Results



Consolidated facility information (from multiple EPA systems) was searched to select facilities

Handler ID: Beginning With: PAD002278331

Results are based on data extracted on DEC-10-2004

Note: Click on the underlined CORPORATE LINK value for links to that company's environmental web pages. Click on the underlined MAPPING INFO value to obtain mapping information for the facility.

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HANDLER NAME: SOLID STATE SCIENTIFIC INC

HANDLER ID:

PAD002278331

8-18-80

STREET: COMMERCE & ENTERPRISE ROADS FACILITY INFORMATION: [View Facility Information](#)

CITY: MONTGOMERYVILLE

CORPORATE LINK:

No

STATE: PA

COUNTY:

MONTGOMERY

ZIP CODE: 18936

MAPPING INFO:

[MAP](#)

EPA REGION: 3

CONTACT INFORMATION

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
JOSEPHINE HISTANO	COMMERCE & ENTERPRISE ROADS	MONTGOMERYVILLE	PA	18936	2158558400	Public

HANDLER / FACILITY CLASSIFICATION

HANDLER TYPE

Large Generator

D000, D001, F002, F003, F005, U002, U134, U184, U188, U226, U239

[Go To Top Of The Page](#)

Total Number of Facilities Displayed: 1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

INSPECTION REPORT COMMENTS

Date of inspection 1-6-2005 Identification Number PAD 002278331Company/Facility/Site Name Solid State Scientific, Inc.
Commerce and Enterprise Roads
Montgomeryville, PA 18936

On this date Charlie Fees of the Pa DEP conducted a hazardous waste generator inspection. However, The company at the above address is closed and the parking lot empty.

The EPA lists Solid State Scientific as a large quantity generator (LQG) of hazardous waste. The initial notification occurred 8-18-1980.

The phone number given on the EPA database does not reach the Solid State Scientific company.

Based on the above information, the EPA should remove "Solid State Scientific" from its list of hazardous waste generators.

This inspection report is notice of the findings of an inspection conducted by a representative of the Department. This report is formal notification of any violations observed during the inspection. Additional notification of violations may be issued concerning either violations noted herein, or other violations identified as a result of review of laboratory analyses or Department records.

This report does not constitute an order or other appealable action of the Department. Nothing contained herein shall be deemed to grant or imply immunity from legal action for any violation noted herein.

Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.

Person interviewed (signature) _____ Date _____

Inspector (signature) Charlie J. Fees Date 1-6-2005Page 2 of 2



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

Inspection Date 1-6-05

Time Start _____

Time Finish _____

HAZARDOUS WASTE INSPECTION REPORT☒ **GENERATOR**☐ **S Q GENERATOR**Company name Solid State Scientific I.D. Number PAD 002278331Site Address Commerce & Enterprise Bldg.County Montgomery Municipality Montgomery Twp. Zip 18936Name of Inspector Charles Fees

Name & Title of Responsible Official _____

Person Interviewed _____ Telephone (____) _____

Mailing Address (if different from above) _____

Amount of Hazardous Waste Generated per Month: _____ Pounds _____ Kgs

1. Site Characterization:STORAGE: ☐ Container ☐ Tanks ☐ Containment Bldg. ☐ Drip Pad Other _____PBR: ☐ Neutralization/WWTP ☐ Reclaim Other _____GENERATOR TREATMENT ☐ Containers ☐ Tanks ☐ Containment Bldg. ☐ Drip Pad**2. Universal Waste:** ☐ Large Quantity Handler ☐ Small Quantity Handler

Universal Waste Types _____

3. Hazardous Waste Transporters:

Transporter Name _____ License Number _____

Transporter Name _____ License Number _____

Transporter Name _____ License Number _____

4. Types of hazardous waste generated and destination facility (location & type).

Waste Code	Waste Description	Destination Facility
	- CLOSED -	



Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

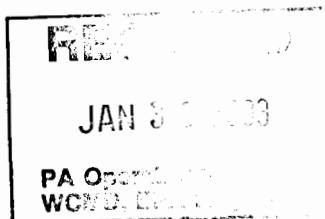
January 28, 2003

Phone: 610-832-6212

Fax: 610-832-6143

Southeast Regional Office

Mr. Denis Zielinski
Facility Lead Program Coordinator
USEPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029



Re: Environmental Indicator Sites
Environmental Indicator
Reports and Forms

Dear Mr. Zielinski:

Enclosed are Environmental Indicators (EI) forms along with supporting reports performed by Foster Wheeler Environmental Corporation under PADEP Contract No. ME-359186(GTAC-3) for the following facilities:

1. Solid State Scientific, Inc.- Montgomeryville, Pennsylvania, PAD No. 002 278 331
2. M.A. Bruder and Sons, Inc. – Philadelphia, PAD No. 069 020 691
3. Johnson Matthey, Inc. – West Chester, Pennsylvania, PAD No. 067362 327

We have reviewed the reports and EI worksheets, and based upon the information in those reports, concur with the consultant's opinion. More information is needed to make determinations regarding the groundwater and human health indicators for Solid State Scientific, Inc. and M.A. Bruder and Sons, Inc. The Current Human Exposures is under control at Johnson Matthey, Inc. but more information is needed to make a determination of the Migration of Contaminated Groundwater.



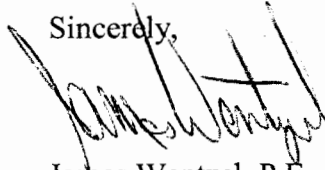
Mr. Denis Zielinski

- 2 -

January 28, 2003

Copies of Foster Wheeler's final reports and signed EI worksheets are being forwarded to you for each of the above listed facilities under cover of this letter. If you have any questions on these submissions, please feel free to call either Ms. Camelia Draghiciu at 610-832-6157 or myself at 610-832-6145.

Sincerely,



James Wentzel, P.E.
Chief, Engineering Services
Waste Management Program

Enclosures: EI worksheets (three sets)
Final Reports (three)

cc: Mr. Molina – Division of HWM (w/enclosure – worksheets only)
✓ Mr. Paul Gotthold – EPA, Region III - RCRA Corrective Action (without enclosures)
Ms. Clarke – Foster Wheeler Environmental Corporation (without enclosures)
Ms. Draghiciu – PADEP
Re 30 (AR03WM)014-13

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

DEP-RECEIVED
SOUTHEAST REGION
DEC 06 2002

Facility Name: Solid State Scientific, Inc.
Facility Address: 160, 200, and 201 Commerce Drive, Montgomeryville, PA 18936
Facility EPA ID #: PAD 002 278 331

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

 X If yes - check here and continue with #2 below.
 If no - re-evaluate existing data, or
 if data are not available skip to #6 and enter "IN" (more information needed) status code

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Controls" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program, the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 2

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale/Key Contaminants</u>
Groundwater	<u> </u>	<u> </u>	<u>X</u>	<u>VOCs</u>
Air (indoors) ²	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
Surface Soil (e.g., <2 ft)	<u> </u>	<u> </u>	<u>X</u>	<u> </u>
Surface Water	<u> </u>	<u> </u>	<u>X</u>	<u>VOCs</u>
Sediment	<u> </u>	<u> </u>	<u>X</u>	<u>VOCs</u>
Subsurface Soil (e.g., >2 ft)	<u> </u>	<u> </u>	<u>X</u>	<u>VOCs</u>
Air (outdoors)	<u> </u>	<u>X</u>	<u> </u>	<u> </u>

 If no (for all media) – skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient support documentation demonstrating that these "levels" are not exceeded.

 If yes (for any media) – continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

X If unknown (for any media) – skip to #6 and enter "IN" status code. (In order to provide a more complete representation of site conditions, the reviewer has chosen not to skip to #6.)

 Rationale and Reference(s):

See following page for response to Question #2 (Rationale and Reference(s)).

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

Question #2 - Current Human Exposures Under Control - Rationale & Reference(s)

Response:

Groundwater results from Solid State Scientific (SSS) files were only available through 1987. A 1987 sampling event detected 1,1-dichloroethane in two of the four wells sampled at a highest concentration of 3.3 ug/L. 1,2-dichloroethane, 1,1-dichloroethane, ethylbenzene, tetrachloroethane, toluene, and vinyl chloride contamination were each identified in one well. 1,1,1-trichloroethane was detected in three out of four wells at a highest concentration of 16.1 ug/L. Trichloroethene was detected in all four wells at a highest concentration of 636.4 ug/L. Trans-1,2-dichloroethane was also detected in all four wells at a highest concentration of 1,075 ug/L. Additional sampling indicated trichloroethene contamination as high as 1,200 ug/L, toluene contamination as high as 1,500 ug/L, ethylbenzene contamination as high as 33,000 ug/L, and 1,2-dichlorobenzene contamination as high as 860 ug/L. All groundwater samples were taken from locations on the former Building #2 property. The current owner continues to monitor on-site wells for in-house purposes. Foster Wheeler contacted the current owner and requested current groundwater data. To date, no results have been received.

There is no reason to suspect indoor air contamination. Building #2 is currently vacant. A thermal oxidizer is located on the Building #3 property to control VOC emissions. Little is known about the current Building #1 operations, as access was not provided during the EI site visit.

Due to a lack of sampling information, it is unknown if surface water or sediment are contaminated. According to the SSS consent order and agreement, the facility discharged wastes containing contaminant levels as high as:

- 525 mg/L of fluoride;
- 1,440 mg/L of dissolved solids;
- 1.5 mg/L of phenol;
- 0.68 mg/L of zinc; and,
- 0.45 mg/L of hexavalent chromium

Due to these historic discharges, there is the potential for surface water and sediment contamination.

It is unclear whether surface or subsurface soils are contaminated. Composite soil samples collected in 1987 identified VOC contamination in both the surface and subsurface levels. Approximately 250 tons of the contaminated soil was removed. It is unclear if any contamination remains.

There is no reason to suspected outdoor air contamination. Building #2 is currently vacant. A thermal oxidizer is located on the Building #3 property to control VOC emissions. Little is known about the current Building #1 operations.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 3

3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated Media"	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food³
Groundwater	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>
Air (indoors)	--	--	--	--	--	--	--
Soil (surface, e.g., <2 ft)	<u>YES</u>	<u>YES</u>	<u>YES</u>	<u>YES</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>
Surface Water	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>YES</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>
Sediment	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>YES</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>
Soil (subsurface e.g., >2 ft)	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>
Air (outdoors)	--	--	--	--	--	--	--

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors -- spaces for Media which are not "contaminated" as identified in #2 above.
2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media – Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations, some potential "Contaminated" Media – Human Receptor combinations (Pathways) do not have check spaces ("_____"). While these combinations may not be probable in most situations, they may be possible in some settings and should be added as necessary.

_____ If no (pathways are not complete for any contaminated media –receptor combination) – skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet) to analyze major pathways.

 X If yes (pathways are complete for any "Contaminated" Media – Human Receptor combination) – continue after providing supporting explanation..

_____ If unknown (for any "Contaminated" Media – Human Receptor combination) – skip to #6 and enter "IN" status code.

Rationale and Reference(s):

See following page for response to Question #3 (Rationale and Reference(s)).

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Question #3 - Current Human Exposures Under Control - Rationale & Reference(s)

Response:

With the exception of a few isolated homes, all residences within a 3-mile radius of the site are served by one of four public water distribution systems. Therefore, residents are not expected to be impacted by contaminated groundwater. Residents could be impacted by contaminated surface soils. There are no known residences in close proximity to contaminated surface water or sediment. Residences are not expected to be impacted by subsurface soils due to the depth at which they are found.

Workers are not expected to be impacted by contaminated groundwater as the site is served by public water. Workers could be exposed to contaminated surface soils. Workers are not expected to be impacted by contaminated surface water or sediments as the property with the pond is currently vacant. Workers are not expected to be impacted by subsurface soil contamination due to the depth at which it is found.

A day care center was identified in close proximity to the site. There would be no exposure to contaminated groundwater as the area is served by public water. Children at the day care center could be exposed to contaminated surface soils while playing in the day care yard if surface soil contamination has extended to the surrounding area. The children would not be exposed to surface water or sediment as these media do not exist on the day care property. There would also be no exposure to subsurface soil contamination due to the depth at which it is found.

Construction workers could be exposed to all potentially contaminated media during construction activities.

Trespassers would not be exposed to groundwater and subsurface soil due to the depth at which they are found. Trespassers could be exposed to contaminated surface soil, surface water, and sediment as access to the site is not restricted.

There are no recreational activities identified in close proximity to the site.

Although there are fish in the on-site pond, this is a small pond not used for fishing. There are no known food sources to be impacted by contaminated media.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 4

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"** (i.e., potentially⁴ "unacceptable" levels) because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

_____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) – skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) – continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

 X _____ If unknown (for any complete pathway) – skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Due to a lack of current data, the significance of potential exposures cannot be evaluated.

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a Human Health Risk Assessment specialist with appropriate education, training and experience.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

Page 5

5. Can the "significant" exposures (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) – continue and enter a "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable") – continue and enter a "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) – continue and enter "IN" status code.

Rationale and Reference(s): _____

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)

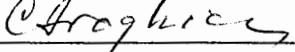
Page 6

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

YE – Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at Solid State Scientific, Inc. facility, EPA ID PAD 002 278 331 located at 160, 200, and 201 Commerce Drive, Montgomeryville, PA 18936 under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

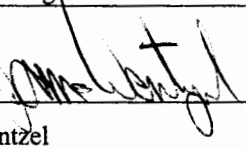
NO – "Current Human Exposures" are NOT "Under Control."

X IN - More information is needed to make a determination.

Completed by: (signature)  Date 1.10.03

(print) Camelia Draghiciu

(title) Engineering Services Section

Supervisor: (signature)  Date 1/28/03

(print) Jim Wentzel

(title) Chief, Engineering Services Section

(PADEP) _____

Locations where References may be found:

All reference documents are appended to the EI Report which can be found at the
USEPA Region III Office in Philadelphia or the PADEP Southeast Regional Office in
Conshohocken.

Contact telephone and e-mail numbers:

(name) Jim Wentzel

(phone #) 610-832-6145

(e-mail) jwentzel@state.pa.us

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:	Solid State Scientific, Inc.
Facility Address:	160, 200, and 201 Commerce Drive, Montgomeryville, PA 18936
Facility EPA ID #:	PAD 002 278 331

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

 X If yes - check here and continue with #2 below.
 If no - re-evaluate existing data, or
 If data are not available skip to #8 and enter "IN" (more information needed) status code

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Controls" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program, the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated groundwater and contaminants within groundwater (e.g., non aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

Page 2

2. Is **groundwater** known or reasonably suspected to be "contaminated"¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action anywhere at, or from, the facility?

_____ If yes – continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

_____ If no – skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

 X If unknown (for any media) – skip to #8 and enter "IN" status code.

Rationale and Reference(s):

All available groundwater data was obtained from the Solid State Scientific (SSS) files. The most current groundwater results were from 1987. The 1987 sampling event groundwater results from Solid State Scientific (SSS) files were only available through 1987. A 1987 sampling event detected 1,1-dichloroethane in two of the four wells sampled at a highest concentration of 3.3 ug/L. 1,2-dichloroethane, 1,1-dichloroethane, ethylbenzene, tetrachloroethane, toluene, and vinyl chloride contamination were each identified in one well. 1,1,1-trichloroethane was detected in three out of four wells at a highest concentration of 16.1 ug/L. Trichloroethene was detected in all four wells at a highest concentration of 636.4 ug/L. Trans-1,2-dichloroethane was also detected in all four wells at a highest concentration of 1,075 ug/L. Additional sampling indicated trichloroethene contamination as high as 1,200 ug/L, toluene contamination as high as 1,500 ug/L, ethylbenzene contamination as high as 33,000 ug/L, and 1,2-dichlorobenzene contamination as high as 860 ug/L. All groundwater samples were taken from locations on the former Building #2 property. The current owner continues to monitor on-site wells for in-house purposes. Foster Wheeler contacted the current owner and requested current groundwater data. To date, no results have been received.

¹"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 3

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"² as defined by the monitoring locations designated at the time of this determination)?

_____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"²)

_____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"²) - skip to #8 and enter "NO" status code, after providing an explanation.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

² "Existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

- _____ If yes - continue after identifying potentially affected surface water bodies.
- _____ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.
- _____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): _____

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5. Is the **discharge** of "contaminated" groundwater into surface water likely to be "**insignificant**" (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgment/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate "level(s)," and if estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") – skip to #8 and enter a "NO" status, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems..

If unknown – skip to 8 and enter "IN" status code.

Rationale and Reference(s):

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

_____ If no - enter "NO" status code in #8.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s): _____

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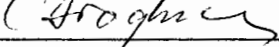
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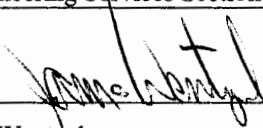
8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE - Yes, "Migration of contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Solid State Scientific, Inc. facility, EPA ID # PAD 002 278 331 located at 160, 200, and 201 Commerce Drive, Montgomeryville, PA 18936. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

NO - Unacceptable migration of contaminated groundwater is observed or expected.

X IN - More information is needed to make a determination.

Completed by: (signature)  Date 1-10-03
(print) Camelia Draghiciu
(title) Engineering Services Section

Supervisor: (signature)  Date 1/28/03
(print) Jim Wentzel
(title) Chief, Engineering Services Section
(PADEP)

Locations where References may be found:

All reference documents are appended to the EI Report which can be found at the
USEPA Region III Office in Philadelphia or the PADEP Southeast Regional Office in
Conshohocken.

Contact telephone and e-mail numbers:

(name) Jim Wentzel
(phone #) 610-832-6145
(e-mail) jwentzel@state.pa.us

Facility Name: Solid State Scientific, Inc.
EPA ID #: PAD 002 278 331
Location: 160, 200, and 201 Commerce Drive, Montgomeryville, PA 18936

MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL (CA 750)

Level

